

American Institute of Aeronautics and Astronautics

TELEMETRY

The Newsletter of the AIAA Alabama-Mississippi Section -- December 2002





From the Chairman...

The success of the AIAA AL-MS Section depends on the efforts of volunteers, and we are fortunate to have a cadre of self-motivated officers, directors, and other Section members. We have filled the last two openings on our Board of Directors, with Allison Cash taking the Young Professional Director's position, and Kevin Connell becoming the Education Director. I encourage all members to pitch in and help with those Section activities that they are interested in or when they are asked for support.

Several notable Section events have occurred. The October lunch meeting with Rex Geveden presenting the Gravity Probe B was a stimulating and enlightening program – thanks to Rex and to Vice-Chairman Tom Hancock. The AIAA HQ ceremony designating Marshall Space Flight Center an AIAA Historic Aerospace Site was attended by many Section members, and was the result of a nomination made by our Honors and Awards Director Steve Noneman. The Ninth Great Paper Airplane Contest, under the direction of Steve Noneman and cosponsored with the UAH Student Section, was a popular event, with contestants ranging from 5 to 79 years of age. And the September issue of Telemetry, edited by Alan Lowrey, enjoyed very favorable comments at the last Regional Activities Committee meeting.

There are several activities in the Section's near-term. A general lunch meeting will be held in December with Art Stephenson, Director of Marshall Space Flight Center, speaking. In January the Section will be co-hosting with UAH a Tactical Missiles Symposium. John London has organized a team, which is constructing a replica of Robert Goddard's first successful liquid-fueled rocket. This is a joint AIAA AL-MS Section/NASA-MSFC project as part of celebrating the 100th anniversary of the Wright Brothers first manned flight. Finally, plans are being made for a New Technologies Symposium in a format similar to the very successful System Engineering Seminar held in 2001. Details of these activities are given elsewhere in this newsletter or will be in subsequent announcements.

I look forward to seeing you at the 19 December lunch meeting.

--Arloe Mayne

Where we've been, where we're going ...

Marshall Space Flight Center's AIAA
historic site designation tribute to past -and future.

by Jonathan Baggs of the Marshall Star.

The word's of Apollo 8 astronaut Frank Borman rang out across the Marshall Center's Morris Auditorium: "Exploration is the essence of the human spirit."

And the Marshall Center has been in the middle of space exploration for more than 40 years -- from the pioneering days of early boosters that could barely leap out of Earth's gravity, to the giant Apollo spaceships that made Moon travel possible, to Skylab, Space Shuttle and the International Space Station. Thanks to the work of thousands of men and women that made the wonder of space travel possible, the American Institute of Aeronautics and Astronautics designated NASA's Marshall Space Flight Center as a Historic Aerospace Site on October 30.

"As we stand here today to honor this historic place, we are fortunate to be 'at' the actual place," said Cort Durocher, AIAA executive director, explaining to the Morris Auditorium crowd that historic aerospace sites often are overlooked.

The AIAA established its Historic Aerospace Sites Program in January 2000, to promote the preservation of places that played significant roles in aerospace history.

"Unfortunately, our recognition of these sites does not guarantee their perpetuity," Durocher said. "But, we are here to say to those who have gone before, 'Your work has not gone forgotten."

Durocher and Marshall Director Art Stephenson then unveiled a plaque designating the Marshall Center as a historic aerospace site. The plaque will be on permanent display in Marshall's Building 4200 lobby close to the new Heritage Gallery, which contains artifacts relating to the Center's history.

In the audience were former members of the German rocket team of Marshall's first director Dr. Wernher von Braun, other Marshall retirees and William R. Lucas, a former director of the Marshall Center.

During the ceremony, the audience was treated to a video illustrating the Center's history as told through the Center's newspaper, the Marshall Star.

(continued on page 2)



Cort Durocher (left), Executive Director of the AIAA, congratulates NASA's MSFC Director Art Stephenson after unveiling a plaque dedicating the Marshall Center as a Historic Aerospace Site. Photo by Emmett Given of MSFC.

Dr. Ann Whitaker, director of the Science Directorate, noted that the Marshall Star first came out in March 1960 and has been published weekly ever since, "covering our historic milestones."

For more than 65 years, the AIAA has served as the principal society of the aerospace engineer and scientist. Formed in 1963 through a merger with the American Rocket Society and the Institute of Aerospace Sciences, the purpose was, and still is, "to advance the arts, sciences, and technology of aeronautics and astronautics, and to promote the professionalism of those engaged in these pursuits." Today, the AIAA has more than 31,000 professional, and more than 5,500 student, members. In addition to the Marshall Center, other historic sites recognized by the AIAA in 2002 include NASA's Langley Research Center in Hampton, VA., the Allegheny Ballistics Laboratory in West Virginia, Oakland Municipal Airport, and the site of the first balloon launch in Annonay, France.



Standing by the plaque are (left to right) Section Chairman Arloe Mayne, Honors & Awards Director Steve Noneman, and past chairman Alan Lowrey. Steve Noneman led the Section's efforts to get the MSFC site nomination. Photo by Professor John Cochran of Auburn University.



Vic Giuliano presenting to the AEA.

Benefits of AIAA Pre-College Outreach Program Briefed to Alabama Education Association (AEA) Workshop

Vic Giuliano, the Section's Pre-College Outreach Director, presented the benefits of AIAA Educator Associate membership to K-12 teachers participating in the AEA Alabama Aerospace Celebration (AAC) Coordinator's Workshop held on November 19 in Montgomery. The daylong workshop focused on AEA's planned activities toward the April 26-May 10 AAC celebration of 100 years of flight under the theme "Alabama Has the Wright Stuff". The presentation summarized AIAA National Educator Associate (NEA) membership benefits to teachers for them and their students, including section membership mentoring and classroom visit opportunities, the section high school engineering scholarship program, AIAA National conference attendance benefits, financial grants, and qualification for Educator Achievement Award recognition. The participants expressed great interest in the program and every teacher there not already an Educator Associate member applied for membership, resulting in 23 new NEA applications. Once processed, this will establish the AL-MS section as the largest NEA membership section throughout all of AIAA. Photo below of AIAA booth at the workshop.



AIAA AL-MS Section. P.O. Box 7208. Huntsville, AL 35807

AIAA Alabama-Mississippi Section **December Luncheon Meeting**

Date: Wednesday, December 18, 2002

Time: 11:00 am - 1:00 pm

Location: The Radisson Suite Hotel

6000 S. Memorial Parkway

Huntsville, Alabama

Cost: \$12.00

RSVP: Mr. Tom Hancock

E-mail (preferred): tom.hancock@msfc.nasa.gov

Telephone: 256-961-4002

Please make reservations (or cancellations) By 12:00 noon on Monday, December 16.





Our Topic:

The Marshall Space Flight Center

Art Stephenson is director of NASA's Marshall Space Flight Center in Huntsville, Alabama. He heads one of NASA's largest field installations, with more than 6,500 civil service and contract employees and an annual budget of \$2.3 billion. Mr. Stephenson manages a broad range of research and development activities for the U.S. space program at the Marshall Center, including oversight of all propulsion elements of the Space Shuttle, advanced launch vehicles, microgravity science, payload operations on the International Space Station, as well as space science and Earth Science projects.

Since joining Marshall in September 1998, Mr. Stephenson has led the Center during a period highlighted by the launch and successful operation of the Chandra X-ray Observatory -- the world's most powerful X-ray telescope. He oversees Marshall's work on critical NASA initiatives such as the development of new reusable launch vehicles, microgravity research, various Earth and space science projects, and operations support to all science payloads aboard the International Space Station.

Mr. Stephenson arrived at NASA with more than 35 years of experience in the space industry. His career started with TRW in 1964, working on the design of test equipment for the Lunar Module Abort Guidance System in the Apollo program. Over the next 27 years, he took on even greater roles in the nation's space program. He led the development of the Pioneer Jupiter Spacecraft Receiver, the first spacecraft to exit our solar system, as well as the development of the Space Shuttle Orbiter Sband Network Transponder that is still in use today. He managed several spacecraft programs and space transportation programs before leaving TRW in 1992 to become vice president of Oceaneering Space Systems in Houston. He led the expansion of the Space Systems organization from 30 to 220 people, and oversaw the design and manufacture of hardware that included thermal protection subsystems for several launch vehicles, advanced life support systems, extravehicular activity astronaut equipment, advanced robotics and robotic test beds and space refrigerators. In 1997, he became president of Oceaneering Technologies, which includes divisions working with the U.S. Navy, NASA, Department of Energy and the entertainment industries.

For his exceptional contributions to the space program and the nation, he has been recognized with the NASA Outstanding Leadership Medal, the NASA Group Achievement Award, and the NASA Exceptional Achievement Medal. In 2001, he was awarded an honorary doctorate by The University of Alabama System and was selected by the American Society for Engineering Management as the 2001 Engineering Manager of the Year. Mr. Stephenson is an Associate Fellow member of the American Institute of Aeronautics and Astronautics, and a member of the National Space Society and American Astronautical Society. He and his wife Loa have two adult children, Kristin and John, and are the proud grandparents of three grandsons.

AIAA Tactical Missile Design Symposium

January 14, 2003, 8:00 – 4:00

DURATION: ONE DAY

COURSE SUMMARY

This symposium will show by example the process. tactical missile design Establishing the characteristics of an increased-performance 2.75-in tactical missile system and showing an iteration of the design process will illustrate the and tradeoffs the techniques in conceptual design process. The presentations will help you to quickly develop insight into tactical missile vehicle issues technologies. and Attendees will receive tutorial briefings on conceptual design processes, solid propulsion, aerodynamics, and trajectory This course is extremely modeling. useful for professionals or students who are starting or transitioning into propulsion careers.



Include notes and reference materials.



Sponsored by the AL-MS Section and UAH Student Chapter of the AIAA

Co-Chairs:

Dr. Robert A. Frederick, Jr., UAH frederic@eb.uah.edu

and

Dr. Jay S. Lilley, AMCOM

COSTS:

Early Registration (by January 7, 2003)

\$250 Non-AIAA Member

\$200 AIAA Member

\$ 0 AIAA Student Member

Registration (after January 7, 2003)

\$300 Non-AIAA Member

\$250 AIAA Member

\$ 50 AIAA Student Member

REGISTRATION INFORMATION:

Date: January 14, 2003, 8:00 – 4:00

Location: UAH Tom Bevill Center Room 284, Huntsville, Alabama

Registration:

Victor J. Giuliano.

victor.giuliano@pw.utc.com. 256-721-2422

Download Registration Forms at:

http://www.eb.uah.edu/ipt/

The AIAA Paper Airplane Contest -- fun for all ages

The AL-MS Section held the Ninth Annual Great Paper Airplane Contest on November 1, at the University Center on the campus of the University of Alabama in Huntsville (UAH). Always a big success, the numerous contestants ranged in age from young children to long-time professionals in the local aerospace community. Awards were presented in various age groups, in the categories of aerobatics, time-of-flight, distance, accuracy and artistic design. The event was co-hosted by the AIAA student chapter at UAH. *Photos by Emmett Given of MSFC*.



Robert Bond of Morgan Research launches his paper airplane in the aerobatics competition.



C.J. Wilkerson (right) winds up for the distance competition, while Richard Trieu waits his turn.



Wolfgang Braun of AJT Associates demonstrates good form during the accuracy competition.



Tom Hancock of Titan Corporation (right) gives Nathan Elrod some pointers on launching methods.



Anshu Draffen helps her son, 3-year-old Arvind, fine tune his airplane.

2002-03 Section Officers and Board of Directors

Position	Name	Business Phone	E-mail Address
Chairman	Arloe W. Mayne, Ph.D	256/881-7124	ArloeWJr@cs.com
Vice Chairman	Thomas M. Hancock	256/722-5555	tom.hancock@msfc.nasa.gov
Secretary	Wanda G. Reece	256/544-2630	wanda.reece@msfc.nasa.gov
Treasurer	Syri Jo Koelfgen	256/544-1870	Syri.J.Koelfgen@msfc.nasa.gov
Membership	Victor J. Giuliano	256/721-2422	victor.giuliano@pw.utc.com
Education	Kevin S. Connell	256/782-5972	kconnell@jsucc.jsu.edu
Public Policy	John R. London	256/544-0914	john.london@msfc.nasa.gov
Honors & Awards	Steven R. Noneman	256/544-2048	steven.noneman@msfc.nasa.gov
Young Professional	Allison Cash	256/650-2738	Allison.Cash@itt.com
Technical	John Lassiter	256/544-3022	John.O.Lassiter@msfc.nasa.gov
Career Enhancement	J. Wayne McCain, Ph.D.	256/233-6501	drwayne@athens.edu
Pre-College Outreach	Victor J. Giuliano	256/721-2422	giuliano@pwfl.com
E-mail Coordinator & Webmaster	Todd Honeycutt	256/430-0753	thoneycutt@stsllc.com
Newsletter	Gordon A.(Alan) Lowrey	256/544-7684	gordon.lowrey@ums.msfc.nasa.gov
Evolution of Flight	Alfred M. Wright	205/876-8037	alfred.wright@rdec.redstone.army.mil
National/RAC	Bobby G. Noblitt	256/461-1993	BobNoblitt@msn.com
Supernumerary	Earl H. Pearce	205/467-6349	epearce@alltel.net
Mailings	Eddie T. Lawhorn	256/880-2062	eddie.lawhorn@hsv.boeing.com
Previous Section Chair	Gordon A.(Alan) Lowrey	256/544-7684	gordon.lowrey@ums.msfc.nasa.gov
2000-2001 Section Chair	Robert (Bob) L. Sackheim	256/544-1938	bob.sackheim@msfc.nasa.gov

AIAA AL-MS Section P.O. Box 7208 Huntsville, Alabama 35807 Nonprofit Organization U.S. Postage Paid Permit #232 Huntsville, Alabama

